



# OMNIBYTE<sup>T.M.</sup> CORPORATION

**McLaren Industrial  
Computer Sales Inc. MICS**

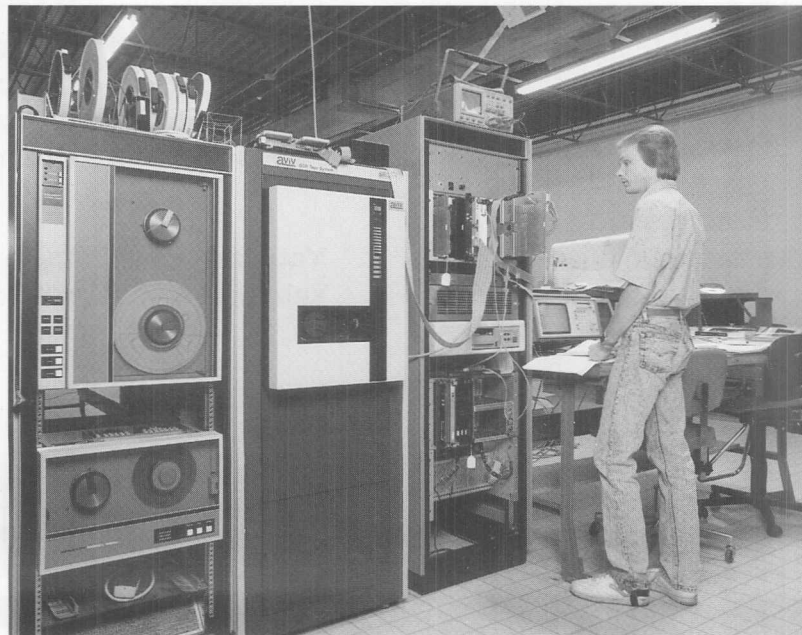
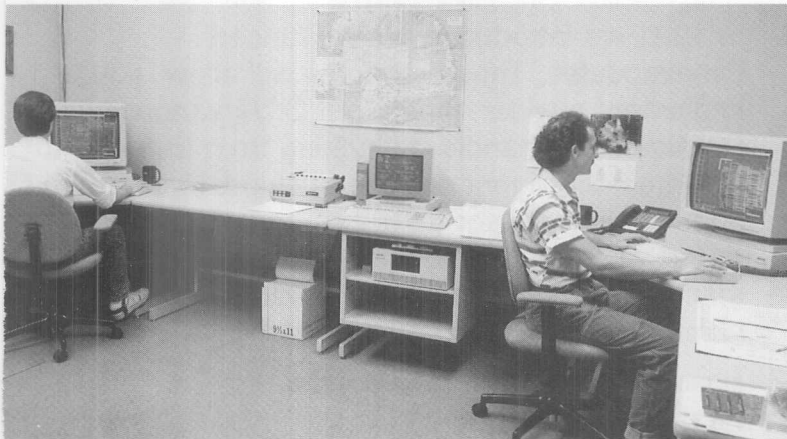
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*A Look at Today...A Vision of Tomorrow*

## Short Form Catalog



# ***A Look at Today... A Vision of Tomorrow***

Omnibyte's success is built on innovation, product quality and customer satisfaction. Omnibyte provides high quality, advanced technology solutions to the real-time and scientific marketplace. We give special emphasis to serving the needs of original equipment manufacturers (O.E.M.'s).

During the past 16 years, our products and services have grown into an extensive family of board level products, supporting software and system level solutions. Omnibyte offers one of the largest selections of VME and Multibus products to meet your application needs.

You can select from single board computers with either the 680X0 family of processors or the MIPS R3000A RISC processor. And we have a complete line of I/O boards from simple non-intelligent to high powered communication controllers.

Our Omnimodule™ modular I/O allows you to customize our boards in literally hundreds of thousands of unique configurations.

In 1991 we introduced our Advanced Omnimodules. These modules will allow you to implement a wider variety of I/O. Advanced Omnimodules handle everything from Ethernet to the latest intelligent peripheral chips. Even entire additional processor units can be implemented on Advanced Omnimodules. And you can stack them up to three high to add even a greater number of features to our boards.

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## **Software Support**

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Omnibyte concentrates on the total solution. We do this by providing you with the highest productivity software corresponding to your needs and requirements.

You can obtain simple monitors to real-time kernels and complete operating systems.

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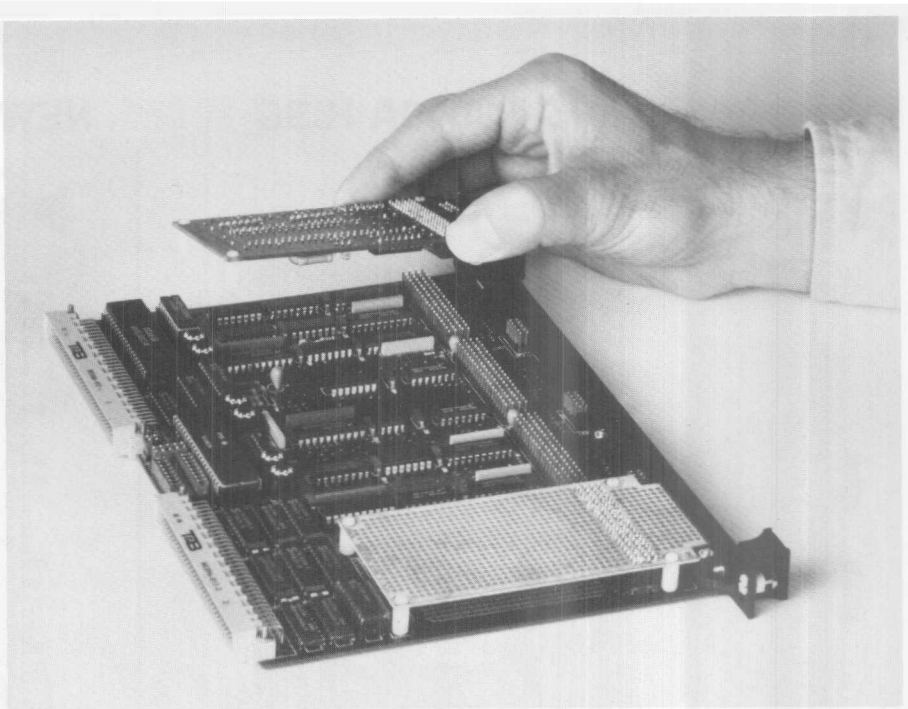
## A Commitment To Quality and Service

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Omnibyte provides you with exceptional quality and reliability of products and services. Our reputation is proof of our determined commitment to quality for all of our offerings.

We are dedicated to giving you fast and accurate responses to your technical questions. A well organized technical staff provides you with quality design-level expertise.

Omnibyte has made a significant investment in equipment and personnel to bring you high quality products. A comprehensive anti-static program is strictly enforced. All non-socketed components are pre-burned in and pre-tested. Each board is thoroughly tested on advanced automatic test equipment. And all boards receive a 72 hour burn in at 65°C. Once out of the burn-in chamber all boards are functionally tested.



Omnibyte also implements a fully documented quality assurance and product testing program to MIL standard requirements.

These quality control procedures allow us to give you a two year limited warranty on all our board level products.

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## A Vision of Tomorrow

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Omnibyte Corporation's future thrust is to concentrate on meeting customers needs and requirements. We will do this by providing you with advanced board level products, software and systems that incorporate "leading edge" design, manufacturing and quality level technology.

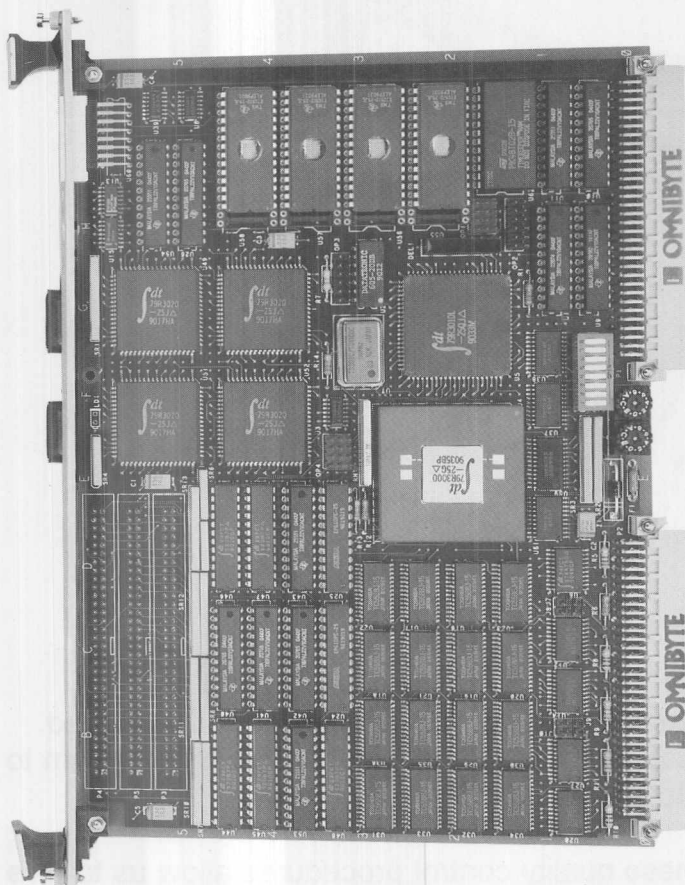
Projected designs in the near future include advanced processors implemented on the latest high performance busses and the latest extensions of the VMEbus. Omnibyte will design to specification for large projects. And we will continue to support these designs with the latest and most functional software available.



**OMNIBYTE CORPORATION**  
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West Chicago, IL 60185-3790  
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CALL TOLL FREE 1-800-638-5022



## NEW : VME MIPS R3000A RISC

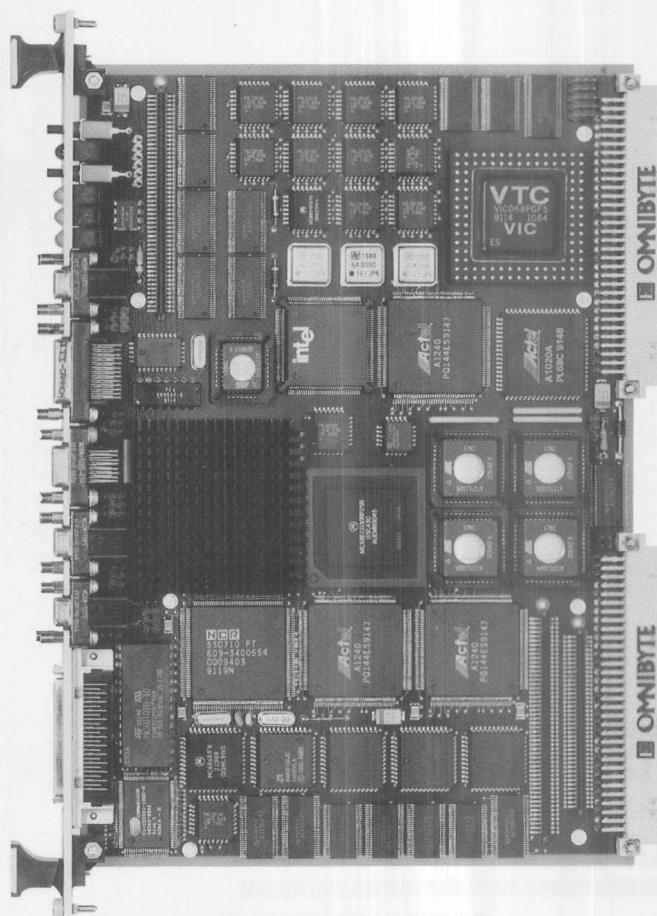


### PULSAR 3000™ VME R3000A SINGLE BOARD COMPUTER

The Pulsar is a high performance, RISC based, single board computer. It can be used as a slot 1 controller and as an embedded target processor in a multi-processor system.

- 25MHz R3000A RISC CPU
- 25 Mhz R3010A FPC
- (4) 25MHz R3020 write buffers
- 128KB (or 32KB) of instruction cache
- 128KB (or 32KB) of data cache
- 4, 8, 16 or 32MB DRAM
- (4) RS232C serial ports
- Intelligent SCSI using NCR53710
- Intelligent Ethernet using i82596CA
- VIC and VAC VME controller chips

## NEW : 68040/68030 DUAL I/O BUS

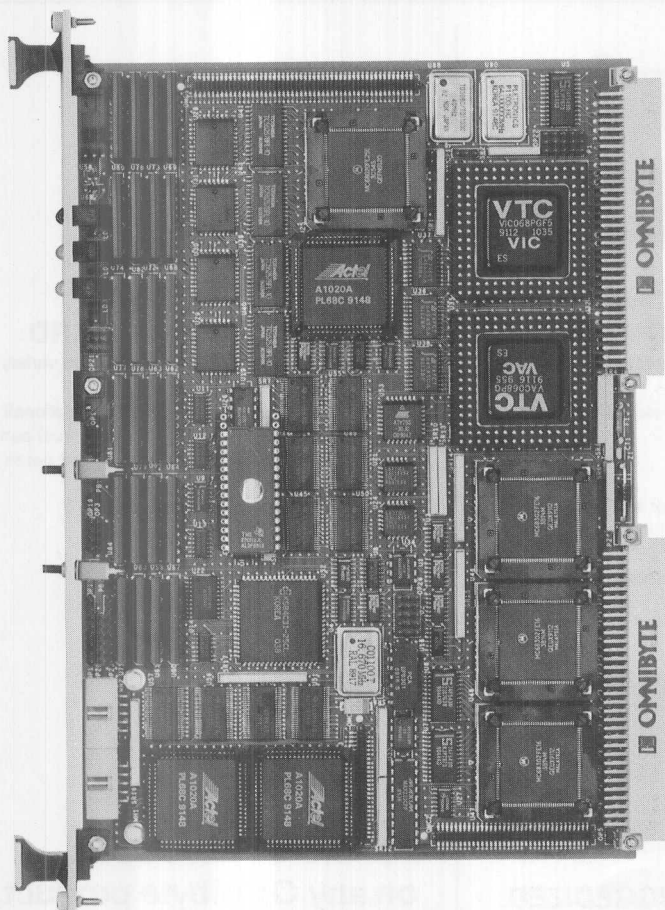


### TAURUS™ VME SINGLE BOARD COMPUTER

Taurus's dual bus architecture allows the 68040 to execute code uninterrupted, while an '030 processes on-board I/O on a second bus. This optimizes the 68040's performance.

- 25-33MHz 68040 CPU
- '030 I/O bus (dual bus) w/68030
- Up to 128MB on board dual access DRAM
- 512KB SRAM, 4MB EPROM, 1MB FEPROM
- (4) intelligent RS232D ports using CD-2401
- (2) additional RS232D ports using 68C681
- Intelligent SCSI using NCR53C710
- Intelligent Ethernet using i82596CA
- 32 lines parallel I/O, Centronics port
- Advanced Omnimodule Connector
- Optional VSB interface
- Optional VME64 interface
- 5-11 linkable 16-bit timers and watchdog timer
- Bus snooping
- Calendar clock w/ battery and 8KB NV RAM
- VIC VME controller chips

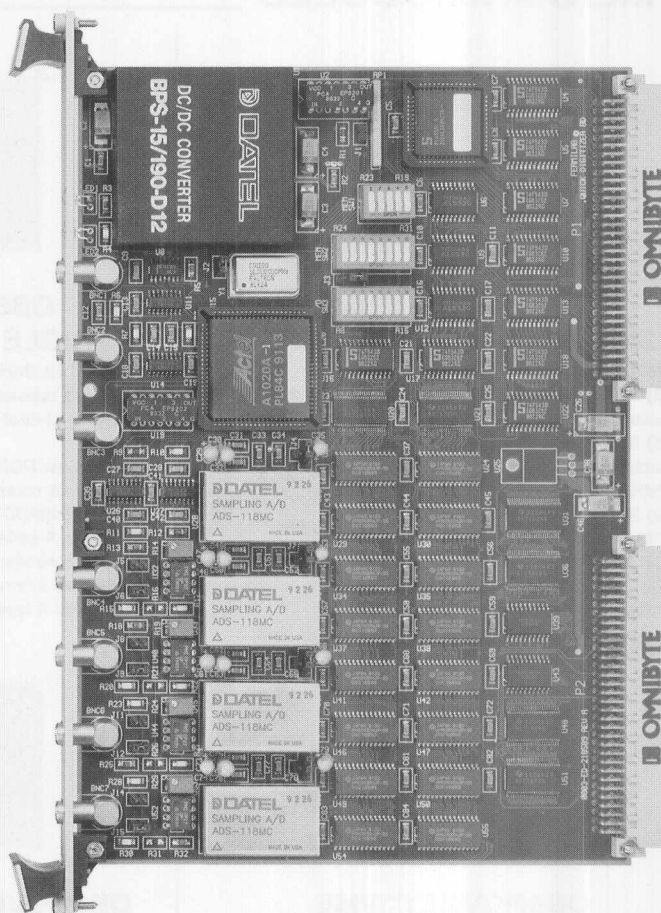
## NEW : COMMUNICATION AND A/D



### JUPITER™ VME COMMUNICATION BOARD

The Jupiter is a powerful, high speed VMEbus communication controller. It is designed for moving and sharing large amounts of data quickly and through a variety of protocols. It can operate several protocols concurrently. This makes it ideal for use as a protocol converter. It features:

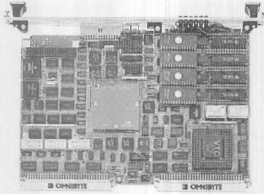
- Up to (9) communication ports using 16.7 or 20MHz 68302 IMP's capable of ISDN, X.25, X.29, SDLC, HDLC, Bisync, DDCMP, V.110, SS7 and other protocols
- Up to 21 DMA channels
- 25MHz 68020 CPU
- 1-8MB true dual ported DRAM
- 256KB SRAM I/O buffer
- 128KB for 68020 variable/stack space
- 256 bytes of NV RAM
- Up to 512KB Flash PROM
- Up to 1MB EPROM



### COMET™ VME DIGITIZER BOARD

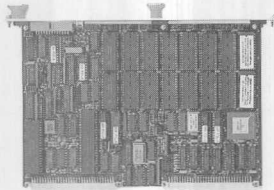
The Comet is a 4-channel 12-bit waveform digitizer. It is ideal for use in applications such as spectrum, transient, vibration and wave form analysis. It is also well suited for radar, sonar, video digitization, medical instrumentation and high speed data acquisition systems. It features:

- (4) Independent analog input channels
- 512KB of dual-ported SRAM, (128KB per channel)
- Storage for 64,000 samples per channel
- Up to (4) 1, 2, or 5 Mhz analog to digital converters
- Continuous or synchronous sequencing
- Independent or multiboard synchronizing
- Inputs to the front panel
- VMEbus slave interface



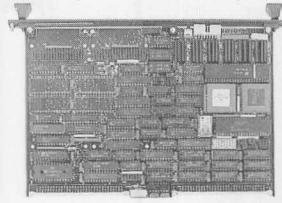
## OB68K/VME40™ VME SINGLE BOARD COMPUTER

- 68040 25-33MHz CPU
- (8) 28-pin RAM sockets for up to 256KB of dual-access static RAM
- (8) 32-pin sockets for up to 8MB of ROM, (4) sockets may be EEPROM or additional RAM (up to 2MB)
- (2) RS232C asynch serial ports
- (16) lines of parallel I/O
- (1) OMNIMODULE socket for a wide variety of I/O (i.e. 2 serial ports, 20 parallel lines)
- VIC068 VME Interface Controller



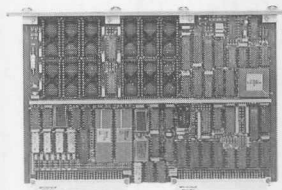
## OB68K/VME1™ VME SINGLE BOARD COMPUTER

- 12.5 or 16MHz 68000 16/32 bit CPU
- (8) pairs of 28-pin sockets for RAM (up to 448KB) or ROM (up to 896KB)
- (2) RS232C serial ports using (1) 68681 DUART
- (2) 8-bit parallel I/O ports using (1) 68230 PI/T
- System controller functions are supported
- (7) Prioritized bus or auto vectored prioritized interrupts



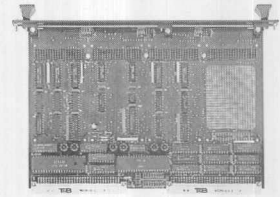
## OB68K/VSBC1™ VME SINGLE BOARD COMPUTER

- 68000 12.5MHz 16/32 bit CPU (68010 and other speeds optional)
- 512KB of dual-access, zero-wait-state DRAM with parity
- (4) 28-pin ROM sockets
- (3) 16-bit counter/timers
- (2) OMNIMODULE I/O sockets for a wide variety of I/O (i.e. 4 serial ports, 40 parallel lines)
- DMA controller (optional)
- VMEbus interrupt generator (optional)
- Optional 4 level bus arbiter



## OB68K/VME1-M™ RUGGEDIZED VME SINGLE BOARD COMPUTER

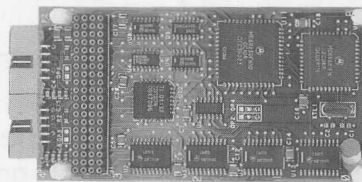
- 10MHz 68000 16/32 bit CPU
- (6) pairs of 28-pin sockets for ROM/RAM
- System controller functions
- (2) RS232C serial ports using (1) Z8530 SCC
- (2) 8-bit parallel I/O ports using (1) Z8536 CIO
- (3) 16-bit timer/counters (in Z8536)
- Components available in standard, extended temp and MIL STD 883B



## OB68K/VIO™ VME UNIVERSAL I/O BOARD

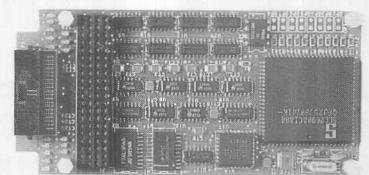
- (4) OMNIMODULE I/O sockets for a wide variety of I/O (i.e. 8 serial ports, 80 parallel lines)
- One (1) interrupt per OMNIMODULE (2 optional)
- All OMNIMODULEs can be brought the front panel
- Up to (3) OMNIMODULEs can be brought out to the P2 connector
- 4.6 sq. in. of prototyping area

For more information  
on any Omnibyte product,  
call our Sales Dept. at  
**1-800-638-5022**



## Omnibyte's OM/20PUB-2SA2™

- Principal IC's: 68230 & 68681
- (2) Async RS232 serial ports out front panel
- 38.4K max. baud rate
- 20 lines of parallel I/O out P2 connector
- (1) 16-bit & (1) 24-bit timer
- Signals brought out - same as listed for OM/20PUB & OM/2SA2

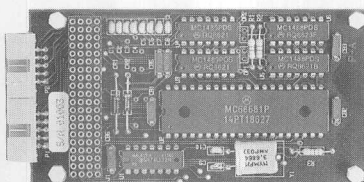


## Omnibyte's OM/8SA2™

- Principal IC: SCC2698
- (8) Asynchronous RS232C serial ports
- Selectable MIL-188-C per channel
- Baud rates 50-38.4K baud independently programmable for each port

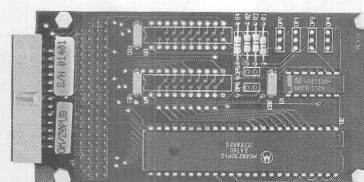


# OMNIMODULES



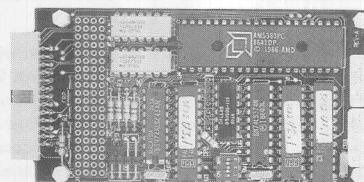
## Omnimodule's OM/2SA2™

- Principal IC: 68681
- (2) RS232C Async serial ports
- 38.4K Max Baud Rate
- Quad Buffered Rec. Data Reg.
- Double Buffered Red. Data Reg.
- Programmable modes:
  - Full duplex
  - Auto echo
  - Remote loopback
  - Auto wake-up for multidrop



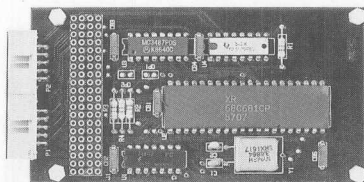
## Omnimodule's OM/20PUB™

- Principal IC: 68230
- 20 lines of parallel I/O
- Buffered (5 types) or unbuffered
- Programmable modes:
  - Bit I/O
  - Uni and Bi directional
  - 8 and 16 bit
  - Interrupts
  - DMA request
  - Handshake modes and polarity
  - Supports DMA



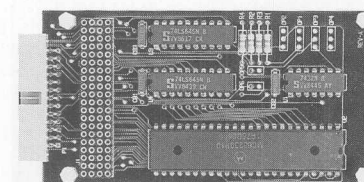
## Omnimodule's OM/SCSI™

- Principal IC: AMD 5380
- SCSI interface for floppy, tape & disk
- Asynchronous interface to 1.0 megabytes per second. (Real time measurement of an actual data transfer)
- Supports initiator and target roles
- Parity generation with optional checking
- Supports arbitration
- Direct control of all bus signals
- High current outputs drive SCSI Bus directly
- Compliance ANSI X3T9.2



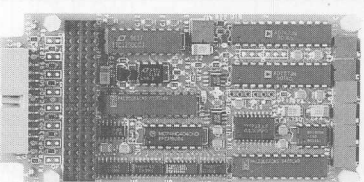
## Omnimodule's OM/2SA4™

- Principal IC: 68681
- (2) Async serial ports
- RS485 (422)
- 38.4K Max Baud Rate
- Quad Buffered Rec. Data Reg.
- Double Buffered Rec. Data Reg.
- Programmable modes:
  - Full Duplex
  - Auto echo
  - Remote loopback
  - Auto wake-up for multidrop



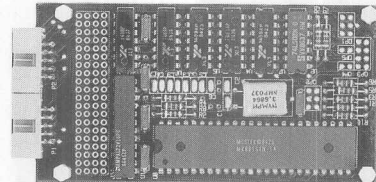
## Omnimodule's OM/CPI™

- Principal IC: 68230
- Centronics compatible printer interface



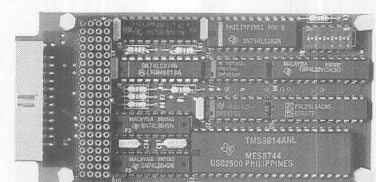
## Omnimodule's OM/AD-DA1™

- Principal IC: (2) Analog Devices 767
- (8) channels of single ended 12-bit A/D bipolar or unipolar or (4) differential A/D channels
- (2) 12-bit D/A channels strappable for 5v, 10v, or 2.5v bipolar or unipolar



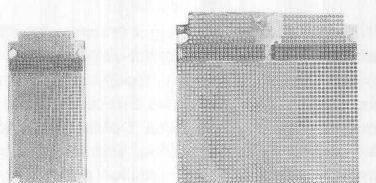
## Omnimodule's OM/2SAS2™

- Principal IC: 68564
- (2) Async/sync RS232C serial ports
- 1000K Max Baud Rate
- Supports DMA
- Auto interrupt vectoring
- Supports asynchronous, byte synchronous (i.e. IBM Bisync) and bit synchronous (i.e. HDLC and SDLC) protocols



## Omnimodule's OM/488™

- Principal IC: TMS9914A
- Handles all IEEE-488 1975/78 functions
- Compatible with IEEE-488A 1980 supplement
- Talk and listener function (T, TE, L, LE)
- Automatic source & acceptor handshakes (SH, AH)
- Controller w/pass control
- Sys Controller capabilities
- Device trigger & device clear capabilities (DT, DC)
- Optional automatically cleared 'request serv bit'
- Parallel and serial poll facilities (PP)
- Remote/local function with local lockout (RL)
- Single/dual primary address, Secondary address
- Supports DMA transfers

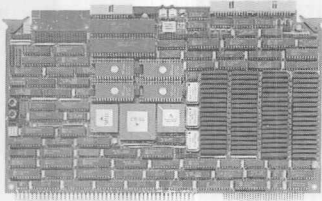


## Omnimodule's OM/KLUGE™ (LEFT)

- 7.7 sq. in. prototyping area
- Full five volt power & ground plane

## OM/KLUGE-DW™ (RIGHT)

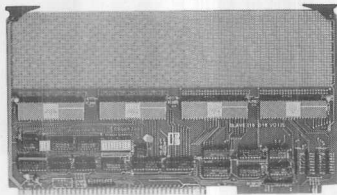
- 15.4 sq. in. prototyping area
- Full five volt power & ground plane



**OB68K/MSBC30™  
MULTIBUS I**

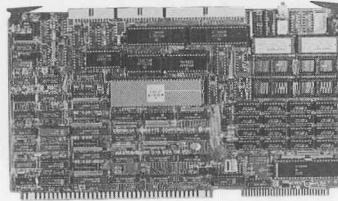
### SINGLE BOARD COMPUTER

- 25-33MHz 68030 CPU
- 4-32MB dual-access, zero-wait-state DRAM with parity
- 68882 Math Co-Processor (optional)
- 2-channel DMA controller (optional)
- (2) RS232C sync/async serial ports
- (2) 8-bit parallel ports
- (1) OMNIMODULE socket
- (4) 32-pin ROM sockets



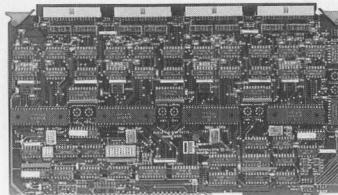
**OB68K230™  
MULTIBUS 96-BIT  
PARALLEL/O TIMER BOARD**

- 96 bits of software definable parallel I/O
- (4) 68230 PI/T chips
- (4) 24 bit timers
- 35 sq. in. of prototyping area



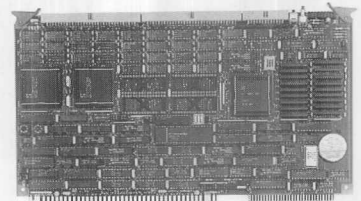
**OB68K1A™ MULTIBUS  
SINGLE BOARD COMPUTER**

- 10MHz 68000 16/32 bit CPU
- 128KB/512KB of zero-wait-state dual-access RAM
- Up to 192KB of EPROM
- (2) RS232C serial ports
- (2) 16-bit parallel ports
- A triple 16-bit timer/counter
- (7) Prioritized-vectored interrupts



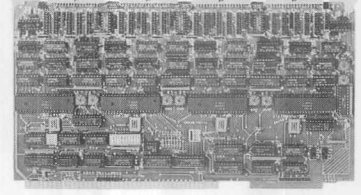
**OB68K/MSIO™ MULTIBUS  
SERIAL I/O BOARD**

- (8) RS232C serial I/O ports
- Individually programmable baud rates between 50 and 38.4K baud
- (4) 68681 DUART chips
- (4) Multi-function programmable 16-bit counter/timers



**OB68K/MCOM1™  
MULTIBUS INTELLIGENT  
16-PORT, SERIAL I/O BOARD**

- 10 Mhz 68070 CPU w/2-channel DMA, MMU, 16-bit timer, UART for monitor
- (16) full duplex RS232C ports using (2) SCC 2698
- 2MB dual access DRAM w/parity
- (4) 32-pin ROM sockets for up to 4MB EPROM
- Battery back-up calendar clock
- Bus interrupter and handler
- Mailbox



**OB68K/OCTAL™ MULTIBUS  
SERIAL I/O BOARD**

- (8) RS232C or RS422 serial I/O ports
- Individually programmable baud rates between 50 and 38.4K baud
- (4) 68681 DUART chips
- (4) Multi-function programmable 16-bit counter/timers

## SOFTWARE

### OMNibug™

OMNibug is a monitor/debugger firmware for 680X0 based Omnibyte boards. Monitor portion allows user to examine registers, display, modify or set memory by location or block, download S-records, verify records and execute programs. Debugger portion includes a single line assembler and disassembler, allows controlled program execution and setting and removing breakpoints.

### VxWorks®

VxWorks is a high-performance real time operating system and development environment for real time applications available for all Omnibyte 680X0 and MIPS R3000 products. Its networking facilities allow it to combine with UNIX to form a complete, integrated development and operational environment.

Trademark of Wind River Systems

### CrossCode C'

CrossCode C is a complete ROMable development package consisting of a C compiler, macro relocating assembler, linker, librarian, downloader for PROM programmers and emulators and a versatile symbol listing utility. It is available for all Omnibyte 680X0 based products.

### OS-9'

OS-9 is a high performance multi-tasking real time operating system for all Omnibyte 680X0 products. It includes a real time executive, I/O system, hierarchical file directory structure, disk file management, screen editor, relocatable macro assembler, linker, assembly level debugger, C compiler and C source level debugger.

Trademark of Microware Systems Corp.

### Freeform'

Freeform is a powerful C symbolic debugger with a command interpreter as a user interface. This lets the user debug in and have the capabilities of the host's MS-DOS or UNIX operating system environment. It is available for all Omnibyte 680X0 based products.

Trademarks of Software Development Systems Inc.

### SPP/e'

SPP/e is a monitor/debugger for Omnibyte's MIPS R3000 based boards. It allows the user to develop, simulate and debug standalone programs at source level or assembly level. The user can modify existing kernels, download programs and develop machine diagnostics.

Trademark of MIPS Computer Systems Inc.

### UNIX V.4'

UNIX V.4 is a powerful multi-user, multi-tasking operating system ideal for software development. It includes: BSD convergence, POSIX conformance, NSF, TCP/IP, RPC, GUI, C Language, real-time support and more.

Trademark of UNIX Systems Laboratories